KEEPING PACE

PITTSBURGH ATARI COMPUTER ENTHUSIASTS

Table of Contents

NOTICE

Keeping PACE is the official publication of the Pittsburgh Atari Computer Enthusiasts. If you enjoy Keeping PACE and would like to receive it regularly you must do one of two things:

1) Become a dues paying member by filling out the form in back of this issue and by sending a check or money order to PACE at the address on the form in the amount of $20.00 (per yr./family). Membership is open to individuals and families who are interested in using or programming Atari personal computers. Membership includes the subscription to this monthly newsletter, access to the club's disk library and to all club functions and discounts.

2) If you are an Atari User Group you will continue to receive Keeping PACE if we receive your newsletter on an exchange basis at the address on the form. Also we are interested in exchanging Disk Libraries of PUBLIC DOMAIN PROGRAMS.

NEWSLETTER ARTICLES:

Please submit all articles on disk to any of the PACE Officers. Articles may also be uploaded directly to the Editor (412)-941-4107 or the P.A.C.E. Bulletin Board (412) 963-1355.

PACE accepts articles for publication in a variety of formats. Articles may be submitted anytime but will probably not make that month's newsletter if submitted less than two weeks before the regular meeting date. Text files on single sided ST disk and uploads to the PACE BBS are the preferred means of submission.

Due to limitations placed on the use of the meeting room, any retailer wishing to sell products at a P.A.C.E. meeting must register with the President or Vice President one month prior to the meeting. Stipulation for such sales will be explained and will be adhered to. PACE reserves the right to limit space to retailers and others at all meetings.

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President's Report

July sure was a hot one! I hope the heat hasn't melted your Atari's. Now that it's August it's time to think about preparing for school whether you are a student, teacher, or parent. Now that I've provoked unpleasant thoughts, let's move on to pleasant ones, like the MAGIC Atari show being held Aug. 28 thru the 30th at the Southfield Hilton in Southfield, Michigan just above Detroit.

Most of the same vendors that attended our show will be there. Hybrid Arts will be hosting a MIDI-MAZE contest. For those of you who don't know what MIDI-MAZE is I will try to explain the game briefly. The game will be hooked up to sixteen St computers thru their midi ports. Each computer is a different color happy face with a front as a face and a back as a solid color. The object is to move your color face thru a maze where you see only the wall or opponents. As you move, you must shoot the opponents before they shoot you. I believe each person gets five lives and when they are gone you are out of the game. The winner is the last survivor. First prize for the winner of the show will receive a CASIO keyboard and software. They will also be hosting MIDI concerts.

They expect to be showing new Atari hardware releases (ie Meg-st, sx1200 modem, Laser printers, and the PC clone that Neal Harris stated would be in production by then). If you have any interest in going please let one of the board members know. You can get additional information and order tickets by calling (313)-736-4544.

Seattle Atari Trek news.

A new Atari st (520stfm) the f stands for built in floppy drive and the m stands for built in RF modulator.

Neal Harris told his audience that the ST line was the best selling machine in Germany and Sweden, and second best seller behind the Amstrad PC in England. He also stated that Atari needed at least 5000 dealers and have under 1500 now. They are starting a new television ad campaign to increase the public's awareness.
Avant-Garde Systems announced Pc-ditto. An inexpensive IBM emulator for the Atari ST suggested retail price of $89.95.

The board has been discussing the possibility of hosting another Atari fair in November. We have the support of local dealers and we all believe it would be good for all concerned. Unlike last year, this fair would be a low budget no frill fair. We want to show there is still support for both eight and sixteen bit Atari lines. This would bring Atarians looking for new items and a chance to demo software before buying together with vendors and manufacturers that want to show their wares. It's a chance for all to fulfill their needs. Any comment will be greatly appreciated. Let me know.

How are you doing with the membership drive? Have you received any PACE money and helped the club? Thanks to those of you that have brought in new members.

Hope to see you at the next meeting. Well it's off to the beach for me.

Tootles,

Lanny

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Secretary's REPORT

SECRETARY'S REPORT
by Deborah Ayres,
Secretary, PACE

Well, I want you to know that this is a very unusual report. Some of you may know that I was not at the last meeting because of a previous Girl Scout commitment in Ligonier. However, as I look into my mind's eye, I can see the past....

After Dave Carey opened the meeting, the first order of business was a demonstration of 'Planetarium". This program is from Atari, and Joe Mikenevich did a very good, and enjoyable presentation.

To keep it 'all in the family', so to speak, the next demonstration was by Danny Mikenevich, who is Joe M.'s son. Danny did an interesting demo of 'Mail Order Monster'. This is a conglomeration of several different types of games. It has elements of a maze game, a battle strategy game, a graphics adventure, and a construction set game!

There was no Library presentation, or library disk this past month because of technical difficulties. These were not computer difficulties, but mechanical

difficulties with Wayne's car en route to the meeting. Better luck next month, Wayne, we missed you.

After the break, we held our regular raffle.... twice. We pulled two tickets for something from our raffle table, then we held our special raffle for the 1030 modem. The holder of the winning ticket for the modem, and also holding one of the winning tickets from the regular raffle was Frank Magnotta. Congratulations, and we hope to see a new member on the BBS some time soon.

Then came the BBS demonstration given by John Babson. This was a live appearance by the board, and by the magic of direct connections, John was able to avoid the hotel's phone system altogether. John demonstrated the Michtron BBS that PACE runs for its board, and connected with 1030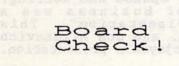 Express!. Those of you who were there know that a good discussion followed on how to use both programs, and are now more familiar with the PACE BBS system. This was worth the wait!

Last, but surely not least, was our First Basic Language Class. Dave Carey ran this class for a very enthusiastic group of future basic programmers. The feedback was very good and Dave plans to continue this class at the next meeting.

Now, for the time of truth. I want to thank the members of the board for their collective help and recollection of that meeting. This report is based on their conversation and discussion, and I want to say 'Thanks!'...(But it was nice being telepathic while it lasted!)

Respectfully Submitted,
Deborah Ayres, Secretary
See Youns all next month!

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Board Check!

by John Babson, Sysop

The activity on the Bulletin Board has been slow as is typical for this hot time of the year. We gave a demonstration of the operation of the Bulletin Board at the last meeting (8-Bit) and a few people who were there called the BBS to apply what they saw in the demo. I have added a new feature to the BBS for you hackers out there who have an urge to access other computers. While on the Main Menu select the [H]ackers Only

option. We have had a number of new uplo. to the BBS. From the File Transfer Menu select "L" for a listing of the programs currently available and a brief description.

I mentioned last month that I would talk about the various kinds of information available on the BBS. To see them you need to select [I]nformation Databases from the Main Menu. When you do you will see the following Menu:

```
        Information Files

   (1) P.A.C.E. Information
   (2) Bulletin Board Information
   (3) Miscellaneous Info Files
   (4) Adventure Game Solutions
   (5) 8-bit Technical Notes
   (6) 16-bit Technical Notes
```

From this Menu you then go to a series of other menus which are shown below.

```
1        PACE Information

   (1) Information about P.A.C.E.
   (2) P.A.C.E. Officers
   (3) P.A.C.E. Charter
   (4) Atari Faire/Show Listing
   (5) Other Atari User Group Addresses

2        Bulletin Board Information

   (1) Local Bulletin Boards
   (2) National Bulletin Boards
   (3) List of Download files on Atari's
       BBS as of 4/21/87
   (4) Scan of ST Download Files on PLINK
       to 12/31/86
   (5) List of ST Download Files on PLINK
       after 1/1/87
   (6) Capture of Menus from GENIE
   (7) List of Download Files on GENIE
   (8) Documentation for Express Program
       (XL/XE)

3        Miscellaneous Info Files

   (1) Analog Magazine Index (Issues 1 thru
       49)

4        Adventure Solutions

   (A) Zork 1
   (B) Zork 2
   (C) Zork 3
   (D) Infocom's Deadline
   (E) Star Cross
   (F) Suspended
   (G) Enchanter
   (H) Infidel
   (I) Infocom's Planet Fall
   (J) Sorcerer
   (K) Witness
   (L) Leather Goddess of Phobos

5        XL/XE Information

   (1) Documentation for ARC Programs
       (XL/XE)
```

(2) ARCX Help Documentation (XL/XE
(3) Memory upgrade to the 1200/800 XL
(4) Additional notes to 1200/800 XL
    memory upgrade
(5) Memory upgrade (256K) to 130XE
    (version 1)
(6) Memory upgrade (256K) to 130XE
    (version 2)
(7) Memory upgrade (576K) to 130XE
(8) Memory upgrade to 130SE (another
    one)
(9) Speed Script Version 3.0
    Documentation

6   ST Information

(1) MEGA ST Information
(2) PC CLONE Information
(3) LASER Printer Information
(4) Modification of the ST for Stereo
(5) Documentation for ARC Programs

After you get to each of these menus
just select the appropriate number and the
BBS will send to you (in ASCII format) the
selected text files. Many of these files
are rather long so you will probably want to
set your terminal program so that you can
capture the text and later dump it to your
printer or the screen when you are off line.
If you want to break out of any of these
files before the end just use Control-C.
Don't be surprised if the particular menus
look slightly different when you log on. I
will be updating these files and adding new
files as they become available. Although we
are getting limited by our disk space on the
BBS we are still looking for uploads. You
can also put your files on a disk and send
it to me at the PACE address and I will send
your disk back to you after I put the files
on the BBS.

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AGENDAS
by Deborah Ayres
***** Agenda for August 8-Bit Meeting *****

---> Library video or demonstration - There
is a strong possibility that there will be
TWO, one for last month, and one for this
month.

---> Break

---> Raffle

---> Movie Maker, demonstrated by Bill
Covert, our new 8-bit At-Large Officer

---> Bank Street Music Composer,
demonstrated by Dave Carey

---> Basic Language programming course, Part
I

***** Agenda for July 16-Bit Meeting *****

---> Bob Haden will demonstrate how to add
another Hard Disk to an existing HD. He will

also answer questions on how a computer
works.

---> Barbarian, a game that has excellent
graphics, demonstrated by Jerry Cobbs

---> DTack Basic, an ST Basic, distributed
by DTack Grounded, who donated this program
to PACE. It will be demonstrated by Rick
Gierl.

---> Goldrunner, demonstrated by Jerry
Cobbs, is another ST game with some
startling graphics.

---> .ARC Modula 2 version demonstration.

There will be a raffle, too!

**** Agenda for August 16-Bit Meeting ****

---> Protos, demonstrated by Jerry Cobbs

---> A demonstration of some of our Public
Domain programs by John Babson

---> M.T. C-Shell, a multi-tasking shell
program, demonstrated by Rick Gierl

---> EZ Draw, demonstrated by Jerry Cobbs.

     If you have something you would like
to see demonstrated, or if you would like to
demonstrate a program, bring it to any
meeting, and talk to an officer, or leave a
note on the Bulletin Board, or send us mail.
We would love to hear from you.

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ST HINTS
by Atari*Joe
downloaded from PLINK

1> If you want to rename a FOLDER, copy the
folder to the same drive and you'll get the
NAME CONFLICT dialog box as usual. Here put
in the new FOLDER name. Just make sure that
you have enough space on the drive to
actually make the copy.

2> If you are using more than a single
drive, such as B: and/or D: ramdisk, you can
move or open a file -- .PRG, .TTP, .TOS, or
Text file -- without actually opening that
DIR. Just hold down the RIGHT MOUSE BUTTON
first, and then the left.

3> Publishing Partner Hint: The manual
says to hold the mouse button down on the
<STOP> button, but if you use ALT + S, it'll
work much more quickly.

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8-BIT HINTS

FLOPPY DISK RESURRECTION FOR 5-1/4" DISKS by "rootbeers"
reprinted from HACKS, June 1987

Well, sooner or later it's bound to happen. A disk of yours sits in the sunlight or a drink spills on it. What do you do? Well, this happened to me recently: a cup of tea spilled and destroyed my most recent work disk. Even so, in ten minutes' time I had the data safely back.

Here's what you do: Take the disk to a sink with a dustless but soft cloth and a felt tip marker (preferably waterproof). Wash your hands. Mark the top of the disk itself near the hub. Tear open the welds on the side farthest from the opening for the head, but be careful not to bend or scratch the disk. Do not use a knife unless you know that it is not magnetized! On the disk I had, the welds could be easily torn; perhaps a new razor blade would be the next safest thing to use. In the following steps, handle the disk by the edges and center only; if the area is polished don't touch it. Remove the disk itself from the sleeve and rinse it thoroughly under the tap. The water will easily run off the polished surface of the disk but will wet the unpolished areas. Use the cloth to dry the disk GENTLY; only the center and edges should be wet anyway. Allow the disk to air dry for a few minutes. Carefully insert the disk itself into the disk drive (without the sleeve) making sure the proper side is up. When you close the door of the disk drive, do so gently and be sure the disk is properly centered. Try to read the disk (do a directory of it, for instance). You should be able to read the disk at this point. Back it up IMMEDIATELY!

That's pretty much the technique; I hope you never have to use it, but if you do, I hope it works for you. If it doesn't though, you've learned a valuable lesson...right?

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PRODUCT REVIEWS
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WORDPERFECT
reprinted from Puget Sound Atari News
June 1987

WordPerfect Corporation introduces WordPerfect for the Atari ST. The following is a brief list of features for this professional level word processor which was shown at Atari Trek '87:

Compatibility - File compatible with WordPerfect 4.1 for the IBM PC and other computers, allowing for direct document transfer to and from the ST without losing document format. Function keys are defined the same between versions, for increased ease of learning.

Footnotes/Endnotes - Footnotes and endnotes are automatically numbered and renumbered as you edit. Footnotes are properly placed at the bottom of the page, and endnotes are compiled at the end of the document. There is no limit to length, as all notes can overflow the current page if you designate.

GEM Interface - WordPerfect fully supports the GEM interface. Virtually all functions may be easily accessed with either the mouse or the keyboard. Desk accessories are fully accessible from inside WordPerfect.

List Files - A complete set of disk utilities is included, for total file maintenance.

Macros - Record any series of keystrokes or mouse actions and recall them with a single keystroke. Macros can be chained or conditional, as well as delayed.

Math - Math mode allows creation of numeric tables in your document, with automatic calculation of subtotals, totals, grand totals, or your own custom math functions.

Merge - Merge can be used to automate many office procedures, including forms, labels, contracts, and other time-consuming tasks. The Merge feature may also be combined with macros to create powerful user-defined functions.

Paragraph/Outline Numbering - Paragraphs can be automatically numbered in several different styles. Or, use the outline feature to simply organize your documents.

Printer Support - WordPerfect supports over 200 printers, including most laser printers. Documents can be printed using true proportional spacing, font downloading, or virtually anything else your printer is capable of.

Speller - A fast 115,000-word dictionary with phonetic and word-template look-up is included. Fully expandable, with legal and medical terms already included.

Table of Contents/Index Generation - Create a table of contents or index for your document, consisting of up to five levels.

Text Columns - Up to five newspaper-style or static text columns may be displayed and edited on-screen.

Thesaurus - Synonyms and antonyms may be displayed for up to three different words at the same time.

Undelete - The last three deletions or series of deletions can be restored at will, at any location you choose.

Virtual Memory - Data can flow onto disk when computer memory is full. No longer are your documents limited by available memory, but only by disk size.

A complete manual, including graduated lessons, a thorough reference section, and a color-coded keyboard template, provides ease of operation for both new and experienced WordPerfect users. WordPerfect is scheduled for release this summer. Watch for world-class word processing at your local Atari dealer. Questions can be directed to Jeff Wilson, Manager of Atari Development for WordPerfect Corporation, at CIS: 72447,3427. Or write: WordPerfect Corp., 288 West Center, Orem, UT 84057. (P.S. They also like to show this product at user's group meetings around the country!)

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LOGISTIX
An ST Spreadsheet
reviewed by STDIO
Reprinted from Puget Sound Atari News
June 1987

THE GOOD NEWS:
Logistix is a full-blown business spreadsheet with powerful macros, complex graphing, and all the scientific and financial functions a person could ever want. Its ease of use is comparable to VIP and this is coming from someone who has been using Lotus for almost 2 years now. It has a more powerful set of macros than VIP (LOTUS) and with the LEARN function your macros are automatically typed in for you (very nifty). The data base functions are very much the same as VIP (input range, criteria range, output range, dsum, dmin, dcount, davg and dmax) and you can sort using as many successive keys as you desire. The slash commands (a la LOTUS/VIP) are laid out differently than VIP, they are in alphabetical order at the bottom of the work sheet (this might take a little getting used to, but after awhile nothing could be easier.)

The item which sets this spreadsheet apart from others is the TIMESHEET. After defining your calendar in 1/2 hours, hours, days, weeks, months or years you can link this calendar to the work sheet and spread time across your work sheet as if they were relational sets of numbers! Time commands are layed out by name, length, start and row and these items are what make up what is called a JOB. Jobs are identified numerically (Job1, etc.) across and down the work sheet with and left and right arrow to define its position and length. The time functions are START, END, LENGTH, AFTER, FLOAT (critical path analysis), and JNAME (returns job name at a specified cell). I was easily able to lay out a running time sheet for a friend in DAYS format and only time will tell how many other functions I could have come up with, given enough time!! If you are in management or construction, or coaching a sports team this program is definitely for you.

THE NOT QUITE AS GOOD NEWS:
Here is a list of all the things I found to be less than ideal with LOGISTIXS.

1. Input, output and criterion ranges must be set each time the work sheet is loaded.

2. You can't point to a range of cells to be graphed, you must point or type in each of the cell contents one at a time.

3. Fonts/lines are low-rez looking (even in monochrome!) on the screen and in the final printout.

4. Sorting speed when looking for a text item in a 1000 item data base seems a bit slow to me.

5. Although the program seems a bit faster than VIP, macro execution is definitely slower.

6. Unlike VIP or LOTUS when the windows are synched vertically they are synched horizontally as well, this cuts the functionality of windowing in half.

7. The Join command only allows values, not values and formulas to be joined with another work sheet. Also, there is no extract command allowing you to save crucial areas of the work sheet separately (important macros for instance).

8. There is no horizontal lookup command.

It must be said that some of these complaints may not affect your application in the least and they should not deter you from using this unique and powerful spreadsheet.

IRRATIONAL OPERATING SYSTEM

Making the Most of your XL/XE Computer

Reviewed by Nick Berry, S*P*A*C*E
Reprinted from Puget Sound Atari NewS
May 1987

I have been getting a great deal of satisfaction out of tearing apart my 800XL and making modifications to it. First came the 256K memory upgrade. Now I've installed a custom operating system called the IRRATIONAL O.S.. Why it's called "IRRATIONAL" I don't really know; other than perhaps it's irrational that a system like this didn't come with the computer to begin with.

The IRRATIONAL O.S. is a chip which installs inside the computer. One way is to remove the standard O.S. chip and replace it with the new chip. The preferred method involves "piggybacking" the new chip on top of the old one and then switching between the systems by applying power to whichever one you want to use. The IRRATIONAL O.S. works on all ATARI XL/XE computers, except for the 1200XL.

The biggest advantage for me is its ease at using the extra 192K of memory as a ramdisk. Once the computer is turned on, a simple SHIFT/RESET keypress brings up the IRRATIONAL menu screen. From there you can format your ramdisk in single, enhanced, or double density and assign it a disk drive number. So, for example, you could set it up as drive #2 and save files or data to it, or make it drive #1 and run your main program all from RAM. I recently purchased the Lightspeed C language package which uses a compiler. Creating a program with it involves a lot of disk accessing for compiling, linking, loading and saving. This means wear and tear on the disk drive and lots of waiting. By loading the necessary files into RAM and doing the compiling and linking there, the whole process becomes a breeze. The only disadvantage is if you have a copy protected program.

More nice things include formatting blank disks. Instead of loading DOS and stepping through the prompts for each disk, just pop on the IRRATIONAL menu and start formatting. Want to see a disk directory? From the menu screen press TAB and presto, you're presented with a menu of the disk. At this point you may load any machine language program by simply pressing the number corresponding to the program on the menu. Do you have a CX85 numberic keypad? Just plug it into Port #2 and all the keys work. No need to load in a driver program. In fact with the keypad, you can reconfigure the ramdisk drive number by pressing ESCAPE and then the number you want the ramdisk to be - even when you're in the middle of a program!

No need to turn off the computer either because something happened and the computer got locked up. Control is only a SHIFT/RESET away. This preserves anything you had stored in memory and pressing RETURN returns you to the program. Not even the infamous PAPERWEIGHT program can cause any problems. The only problems encountered are with programs which won't operate with a custom O.S., and a few programs which only run on XL/XE's. The problem there, lies in that the IRRATIONAL O.S. is compatible with the old 800 O.S., but then this "problem" allows me to run software which I couldn't run before because it was for the 400/800 systems only. I'm still OK for the XL/XE only programs too, since I can switch between the systems.

Also, with this system, BASIC is normally disabled, and is enabled by holding OPTION down during power-up; just the opposite of the normal XL/XE system and more convenient when running the majority of programs. The keyboard response is doubled for faster editing and there is a special "Compatibility Mode" for running software you might have problems with, but so far I haven't had the need to try it. And if you have a HAPPY or US DOUBLER drive, the IRRATIONAL O.S. supports their high-speed I.O. modes.

As you can see, it is quite a powerful and helpful O.S. which has made my computer so much nicer to use. It has even succeeded in subduing my cravings for an ST, at least for now.

The IRRATIONAL O.S. is priced at $34.99 and I feel it's well worth it considering the flexibility and total control it's given me over my computer.

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STEINBERG TWENTY FOUR SEQUENCING PROGRAM

Reviewed by James Lee Stanley
reprinted from HACKS
(Hooked on Atari Computer Keyboard Society)
June 1987 issue

Since I've been a professional musician for the last twenty-five years, it's easy to see why I would be attracted to a computer sequencing program. I've recorded seven albums for various labels from RCA to Electra/Asylum. I've seen the squandering of thousands upon thousands of dollars in recording studios due to not being prepared to record when you actually get there. Now I know in the creative process there is bound to be hours of experimentation, but when you are paying a hundred dollars an hour, it tends to cramp your style. And that's where the idea of doing it in your home gets really attractive. I had heard a little about the sequencing programs available for the ST and, because the ST was a computer I could afford, I purchased one

and anxiously awaited the release of what I thought was the best all-around program. The Steinberg Twenty Four.

For those of you who are unfamiliar with the techniques of recording, I'll give you a brief explanation. You are all familiar with stereo recording. There is a left track and a right track; both of which are read by a two track playback or recording head. Now imagine if instead of two tracks, you had twenty-four tracks. And you can record on each of these tracks individually. When you make a cassette of your favorite album, you are recording on two tracks simultaneously. When a record is recorded in a studio, tracks are arbitrarily chosen. For instance, one track for the bass, one for the guitar, four for drums, and two for synth. That would be eight tracks. Right now, most professional recording studios are twenty-four tracks, so the above configuration would take up eight tracks and leave you with sixteen tracks. After the eight tracks are recorded, you can listen back to them and record with them at the same time, a process called "overdubbing". Steinberg has taken this concept and applied it to the ST with some pretty spectacular results.

The Steinberg Twenty Four is a twenty-four track sequencing program. It is set up so that you can only record on one track at a time, but there are twenty-four of them (hence the name). I picked up my program last January and set about to master the thing. It is now April and I am beginning to feel comfortable with it. Truly, I can't figure out what took me so long to grasp it, but I do have a whole new respect for the term "user friendly".

The screen is laid out like a tape machine. Each track is visible at all times and when something is recorded on a track, a large ON lights up beneath each number. There are the familiar forward, fast forward and rewind commands, numerical locaters so you know where you are in the song; cycle to allow to allow you to hear the same sequence over and over again if you need it; auto record to allow you to have the sequence play along and then automatically record you where you want to come in. (I can't begin to count the hours of my life that were devoted to this on the old analog tape machines, when I was my own engineer, producer, recordist and artist.) Now you just tell the ST where you want to come in, where you want to get out and then push start. There is a command called Mastertrack, which allows you to change the tempo and the time signature within the same song. This is, I believe, the only program which provides this option. It may not seem important, but when you are trying to create the illusion of humans playing and everything is computer rigid, the need becomes self-evident. Each track can also be solo'd while the song is playing, so that

each part can be corrected if need be. And there is a powerful edit option, with a grid of the notes as well as a read out of their pitch, location, duration and velocity, all of which can be manipulated. And every track can be assigned to any of the sixteen MIDI channels available. (MIDI is like a private line from the computer to a particular synth. When the synth and the track are assigned the same MIDI channel, then the information goes only to that synth. You can imagine the confusion if all the info for the bass, the drums, and the synths were going to each channel -- the synth wouldn't know which instructions were meant only for it and the result would be cacophony.)

Nearly every command can be done by the keyboard, as well as the mouse; but there ARE commands that can only be accessed by the mouse. For me this does cut into its efficiency, as I prefer to keep my hands on the keyboard.

But the real joy, for me, is in the fact that is not music that is being recorded by the computer, but merely instructions. That means that after you write a part for one sound you can have the computer play that part on any other sound, in any other octave. This is where so much experimentation comes in. This is the fun.

In summing up the Steinberg 24, I would say that it is a little difficult to grasp initially, but well worth the effort. I just got my first scoring job for a CBS-TV prime time special, which I could not have done without this program. And the job is paying me fifty times what the program cost. I can't wait for the next gig.

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HARDBALL !

Computer Baseball by Accolade Software
For Atari 8-bits ($29.95) and STs ($39.95
8-bit version reviewed by Jack Tombrelia
reprinted from FLAGPOST, June 1987

Well, sports fans, it is baseball season and "Hardball" by Accolade is just the thing for you diehard fans. "Hardball" lets you be Pete Rose by managing your own baseball team and playing at the same time. The game has incredible graphics and is a very accurate representation of a real ball game.

After loading the software, the user has many game options to choose from. You can play against another player or the computer and you can select whether you want to be the home or visiting team. The computer will display your team roster with all data you need to select a starting roster (batting averages, ERA's, and the like). Selecting pitchers is no easy task since each pitcher has only a limited bag of tricks he uses. Only through experience can

you, the manager, determine the best pitcher to go against a particular team roster.

Everything you can do in baseball - like bunt, steal, shift the outfield, and make double plays can be done with "Hardball". Those of you aspiring pitchers will love how the catcher moves his mitt so you can throw your pitches high, low, inside, or out. Batting is tough because you not only have to time the pitch to hit it, but you also have to swing high, low, etc. I have only played a few innings against the computer and my record is BAD!!

There are two things I don't like about the game. The perspective that you get when a ball is hit makes it very difficult to move your fielders (especially the outfielders). The commands for swinging the bat and for throwing to the various bases are confusing. I don't have any suggestions as to how they could be improved, but in the heat of battle, the commands don't come naturally. If you like baseball though, you will enjoy mixing it up with "Hardball".

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GFL CHAMPIONSHIP FOOTBALL

reviewed by Graham Smith
reprinted from ACE Newsletter, April 1987
For all ST Computers

This new game simulation from GAMESTAR is a disappointment. It has pretty good graphics, but joystick manipulation is too complex to make the game very enjoyable.

The game concept places you in either the tailback or wide receiver position, depending upon a run or pass situation, and your view of the field is from either of those perspectives. While this approach is unique, it is also frustrating. I miss the overall view of the field and much of the excitement is simply not there.

Running involves manipulating your runner through predetermined "holes" and trying to out-maneuver the opposition through dazzling joystick control. Supposedly, you can "stiff-arm" and accelerate through and around the defense, but I find these effects don't seem to work very well. Perhaps they require more practice time than I felt is a reasonable investment for this type of game.

Passing requires you to count the "footsteps" in various pass patterns and run them to perfection. In practicing just passes for several hours, I managed to complete 4 passes for small gains. I lost interest and predict you will, too.

What I am waiting for is a football game which is a real simulation such as XOR's fine release for the IBM. Sports simulations using percentages and statistics

are not only more real, buy rely more on your knowledge of the game than your ability to use a joystick. A football game for adults is badly needed.

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3 IN 1 FOOTBALL

reviewed by Graham Smith
reprinted from ACE Newsletter, April 1987
For all ST Computers

A better simulation, although without any graphics, comes from a relatively small company called LANCE HAFFNER GAMES. This company has released a football simulation called 3 IN 1 FOOTBALL which is built entirely upon statistics.

In spite of the text only limitations, the game is not only very playable but the outcome is very accurate statistically to the real game. This game has a very large team data disk (2 disks in the game) including all college teams for 1984 plus all-time great college teams and an assortment of great pro teams.

During half-time of 3 IN 1 FOOTBALL, as well as after the game, there is a detailed summary of all statistics which looks exactly like a printout in the newspaper. With this game you can even keep a running total of all the statistics for a given number of teams which can be dumped to a printer. If only it had graphics this entry would be fantastic.

You are not likely to find 3 IN 1 FOOTBALL at your dealer as Lance Haffner Games is a small company. The address for those interested is: LANCE HAFFNER GAMES, P.O. BOX 100594, NASHVILLE, TN. 37210

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TOUCHDOWN FOOTBALL

reviewed by Yong Pak, STARBASE
from Electronic Arts for 8-Bit Computers
reprinted from Puget Sound Atari News
May 1987

Touchdown Football is the most recent football game for the Atari 8-bit computers. The game is for one or two players with the option of playing a game of three different durations. Like its predecessors, Touchdown Football - TF for short - has its good and bad points.

The game opens with a coin toss. However, you are not given the option to either receive or kick, the choice is made by the program. The band plays a tune at kickoff and the crowd cheers. Like Gamestar Football, plays are created by the computerist. For the offense, there are eight formations, three types of blocking assignments, and eight patterns for the wide

receivers - one being block- no pass. The defense has eight formations and two options during the punt to choose from. Many different plays can be created from the options given. Audibles also can be called out by the offense if you don't like the looks of the defense. There is a 30 second clock to hurry the offense into formation. A timeout can be called by either team - 3 per half. The computerist may also choose to enforce the delay of game and offsides penalties.

The graphics of TF aren't very spectacular or very cleanly done. In my opinion, the designers of the game tried to implement too many colors and details for each football player. Other football games in the past only represented each player with one color which allowed a clean and sharp image of the player. Another setback is that neither the safety nor the ball carrier is distinguishable from other players of the team. Most football games depict the safety and the ball carrier with different colors for faster recognition of who is in control by the computerist. If a pass is caught, you will have some difficulty trying to figure out who caught the pass if there are other members of your team in the vicinity of the receiver. Another drawback to the game is the scrolling of the field; it is done in coarse scrolling. It is hard on the eyes when the field scrolls with your movement. Other football games in the past used fine scrolling, so the reasons for implementing coarse in TF is beyond this reviewer. However, you can get used to the coarse scrolling after several sessions.

The documentation, which I had a difficult time finding in Electronic Arts' cheap package, was rather brief. The points stated in the docs are clear and to the point; however, not much can be covered in five pages. How many people know what a button hook pattern is? The designers must have assumed that only real hardcore football fans buy football games. No explanations are given on the play options of the offense and defense. For example, what is the advantage of setting up in a split formation as opposed to the slot formation? All the options available are nice, but what do they do?

I think I've hacked away at the game enough...on to some positive points! The game offers many options to choose from. Unlike some games like the Atari Football, you make up your own plays. Also, the playfield is three dimensional. When you throw a pass, you must remember that the ball may fly past your head. This is also a plus that you can throw the football above the defender's head and into your receiver's arms. There are some other delights here and there, such as the option of fake punts and field goals, which I didn't mention.

If you like football games, Touchdo
Football should appeal to you. If you are not a big sports enthusiast, then I suggest that you wait for something else. However the price of $10 might still draw some people to the program.

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FUNSTUFF
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LAST HACKS
A ZIX BY ANY OTHER NAME

by Brian Goluszix (C.H.A.O.S.Z.I.X.)
Reprinted from Michigan Atari Magazine
May 1987

Along with the "look and feel" lawsuits, there is a movement afoot to claim parts of the English language. Specifically, it seems that the prefix "Mac" may soon be reserved as the property of a certain corporation. So if you sell a chair that is made to fit perfectly with the MacIntosh, you will not be able to call it a MacChair. Either license the "Mac" prefix, or you're stuck for a name.

The obvious way to avoid this legal problem is to substitute a "public domain" syllable. For example, substitute "zix" : "Mac" or "ST". So my ST-Utterings col i can become Zix-Utterings, and your MacChair can become ZixChair. I hereby donate the word "Zix" to the public domain. Feel free to develop products like ZixThink, ZixPray, ZixEulogy and Pan-Galactic Integrated Zix.

Of course, it will be confusing to use the "zix" word for every product. If you're in the local computer boutique, and see ZixColor on the shelf, How will you know whether it's for the Amiga, Mac, ST, or the IBM? (Ohio, I'm sorry, how will you know whether it's for the Zix, Zix, Zix, or the Zix?)

And will there be any confusion when you go to ZixDonald's to order a Big Zix? Or for breakfast, and EggZixMuffin? A ZixLT? Perhaps ZixDonald's could file a counter claim for the "Mac" word, using a "sound and sense" defense to counter "look and feel".

Shakespeare has no chance to bid for the "Mac" word, so it's ZixBeth from now on. Likewise, "When the shark bites. . . " you know that ZixHeath's back in town. And how long will it take Johnny to get used to trading jokes with Ed ZixMan? It only takes a few seconds for a good word processor to replace any privately claimed words with Zix, but what about all the previou y published materials? Being from Michigar f have sympathy for the map makers, as they make new issues for ZixInac Island the the ZixInac Bridge.

As the claiming of words grows, the use of Zix will spread beyond the "Mac" word. Prime products that might require word protection are the spreadsheet "123", and the "Star" of WordStar. No problem with Zix. We can count "Zix, zix, zix, four". Or "four, zix, zix, zix, liftoff", if we're launching rockets. "Zix light, zix bright, first zix I see tonight" is certainly as poetic as the original.

Eventually, since we'll avoid claimed words, we will all talk like Smurfs (I'm sorry, Zix'es). I'll zix a new zix-processing zix for my zix system with 2 zix of ram and a 60 zix hard zix. But this is not so zix, and I'll zix a song in my zix:

Old ZixDonald had a farm . . . with a zix, zix here and a zix, zix there, here a zix, there a zix . . .

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CLASSIFIED ADS

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HANOVER WARE
by Joe Waters & Frank Sommers
reprinted from L.A.C.E.

HOTTEST COMBO...The eye catcher of the show, the item that received the catcalls and whistles, was a full implementation of the Small Talk language, developed by Allen Fry, being run on a Mega ST 4. A memory hungry monster of a language, until now it could only be run on minis. To sharpen the event, in contrast, was right next door to the Atari display was Kodak showing Small Talk on their system, estimated to cost in the $20,000 range. Small Talk will require the full 4 megs and a hard drive. But truly, things beside skirts do change, and computer power is fast moving from mini to micro. Only last month you were reading that ST's may soon be used to develop Star Wars programs.

WHO'S ON TOP...The Hanover fair was sure to see the announcement of a new publishing program for the ST, or so the whispers had it. Wrong. None. But then neither have we seen FLEET STREET PUBLISHER yet either. In the in between time the Lords of the Desktop, MacIntosh, was told it would receive the most powerful publishing program ever invented, an update of READY SET GO, which would overwhelm its current competition, and the reviews generally agreed. Then CN's reviewer of PUBLISHING PARTNER and true lover of fonts, Bill Price, spent 2 hours looking at the ac program on a Mac. To his mild astonishment, (he'd been salivating for a look at the program for months); PUBLISHING PARTNER had more flexibility and down-right power. Some confirmation of this view comes from an extensive comparison of desktop publishing programs in the February issue of Personal

Computing. Facility for facility the program that came close to PUBLISHING PARTNER was VENTURA PUBLISHER. So our transparent fascination with things the Atari wasn't is gradually waning. Those of you who have tried the Magic Sac, the Mac emulator have generally concluded that the software for the ST, with specialized exceptions, is as good and better. Now the publishing software myth is beginning to fade. The same we believe is true for the IBM software emulator already out there. But until we have "the Blue Box" and can see for ourselves we may not be so easily satisfied. The point is that the ST, no matter how archly we complain about not having this and that for it immediately, is quite a remarkable machine, and performs in its own right at a level higher than the Mac or the PC.

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HAPPINESS
Author unknown

HAPPINESS is what makes us smile. Not, of course, with wicked or lecherous smirks, but with the wide, wholesome, Big Dumb Grin of the Blissfully Ignorant. HAPPINESS comes to different people in different ways. Some, a tiny minority, seem to be blessed with more HAPPINESS than they can use, and go through life smiling and laughing, effervescent to the nth degree. They make

the remaining 99% of us, who struggle even to work up a feeble grin in the face of a bleak existence, sick. This is, of course, just sour grapes, but most of us would still prefer that the chronically joyous would be that way on some other part of the planet.

HAPPINESS is that mushy, contented, satisfied feeling which wells up in us when Good Things happen. Occasionally, a similar feeling occurs without a Good Thing happening, but this is not HAPPINESS, it is Oatmeal.

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DBASIC
From DTACK GROUNDED

This past week PACE received from DTACK GROUNDED a new BASIC program. It was donated to user groups across the country for distribution, and will be placed in our library.

Rather than selling the program, they will be selling the manuals. They sent us a few manuals which will be placed on our raffle table (one each month) as long as the supply lasts.

Thank you, DTACK!!

August 1987

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16	17 BOARD MTG.	18	19 NEWS DEAD-LINE	20	21	22
23	24 ST SIG MTG.	25	26	27	28	29
30	31					

September 1987

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13	14 REG.& 8-BIT MTG.	15	16	17	18	19
20	21 BOARD MTG.	22	23 NEWS DEAD-LINE	24	25	26
27	28 ST SIG MTG.	29	30			

BASIC HISTORY

An Introduction to the 8-Bit BASICs and
Their Bugs!
by John Brandt
Reprinted fro Puget Sound Atari News
June 1987

By popular demand, I have written this article about Atari BASIC. Some of our members are not familiar with the evolution of Atari BASIC; in particular, they don't know about the various revisions of BASIC and what differences exist between them. So, this article will recap the various versions of Atari BASIC, discuss the known bugs in each version, and what to do about them.

Atari has marketed three versions of Atari BASIC, as well as two versions of Microsoft BASIC. This article only discusses Atari BASIC; few (if any) of our members even have Microsoft BASIC, let alone use it with any regularity.

The original Atari BASIC is known simply as "revision A". It was distributed on cartridge for the Atari 400, 800, and 1200 computers because these computers did not have built-in BASIC. It contains several bugs, but most are relatively obscure, so it's still a quite useful roduct.

The built-in BASIC contained in most 600XL and 800XL computers, a la Commodore's once popular VIC-20 and "64" is "revision B". Since the bugs in revision A are well documented, the "old" Atari decided to fix them for the computers, creating revision B. In the process, however, they introduced a couple of nasty new bugs. These bugs are harder to get around than those in revision A.

Because of the severity of the bugs in revision B, the "new" Atari decided to create one more revision ("C", of course). This is the BASIC found in the last few 800XLs and all the XE computers. Atari also makes it available on cartridge for those who have revision A or B and wish to upgrade. All the bugs that were introduced in revision B have been corrected in revision C. Revision C, therefore, contains the fewest bugs.

While all this was going on at Atari, the company that originally designed revision A BASIC, Optimized Systems Software (OSS for short) released three "enhanced" versions of Atari BASIC: BASIC A+, BASIC XL, and BASIC XE. The first of these, BASIC A+, is a disk based BASIC which is "upward ompatible" with Atari BASIC. Like Atari's revision C, it corrects all the major bugs in revision A. It also supports several new BASIC statements to simplify everything from structured programming to player-missle graphics, and it's somewhat faster than

Atari BASIC because it includes some of the FASTCHIP floating-point routines developed by Newell Industries. Its one major drawback is that is "SAVEd" files are not compatible with Atari BASIC "SAVEd" files. The latest version only allows you to LOAD files saved under Atari BASIC, but the only way to convert your programs from BASIC A+ back to Atari BASIC is to LIST the program to disk, boot up with Atari BASIC, then re-ENTER the program. Earlier versions require this nonsense even going the other way.

OSS's next development was BASIC XL. Despite the name, it doesn't require an XL computer. It's essentially the next upgrade to BASIC A+, adding such features as (finally!) string arrays, full compatibility with SAVEd Atari BASIC files (assuming no new features were used) and a "FAST" command which speeds programs up considerably. However, it comes on OSS"s "Supercartridge (tm)" rather than on disk. I still think this was done mainly to thwart pirates, but the cartridge design has advantages for us users as well: it allows you to use the 16K BASIC XL interpreter and still have 40K for DOS and your BASIC program. (With most 16K cartridges, such as Atari's "Microsoft BASIC," you only have 32K for DOS and your own program.) With the companion DOS XL, most of DOS itself can load "underneath" the cartridge, which gives you even more program space.

OSS later released an "add-on" for BASIC XL called the "BASIC XL Toolkit," which comes on disk. It contains an execute-only version of BASIC XL on disk, an "Extensions" module, and some sample programs. (They can't edit or list the programs, of course.) The extensions add several commands which support named procedures and string sorting, and sample programs are included to demonstrate these new commands.

The latest BASIC from OSS is BASIC XE. The name is even more confusing than BASIC XL, because you don't need an XE computer, but you DO need an XL computer with 64K. BASIC XE is essentially BASIC XL, plus Toolkit, with some of the commands that used to be on the cartridge moved to disk (and vice versa) and one new feature. If you have a 130XE (or a compatible upgrade) you can use the "EXTEND" statement to place your strings and arrays in "extended" memory (a la the Commodore 128). (Editor's note: Actually the strings and arrays are stored in main memory and the program is stored in "extended" memory.) This allows larger programs, since you can have up to 64K of strings and/or arrays without using up that valuable 40K of DOS/program space. (This precludes use of the DOS 2.5 RAMdisk, although if you have more than 128K you can still set up a ramdisk beyond the memory that BASIC XE uses.) All in all, I think BASIC XL and its Toolkit are a little better

organized, so unless you really need to write BASIC programs of 40K or more, I recommend BASIC XL over BASIC XE. Now assuming you have Atari BASIC (practically everyone does) how do you tell which revision you have? The easiest way to tell is simply to enter "PRINT PEEK(43234)" at BASIC's READY prompt. Location 43234 happens to contain a different value in each revision. The following table tells you which revision contains what value.

Revision	Contains
A	162
B	96
C	234

Now that you know which revision you have, what bugs do you have? I'm glad you asked. Here is a list of all BASIC bugs that I know of.

BUG #1: (REVS. A & B) The infamous keyboard lockup bug.

This bug is the most serious bug in Revs. A and B (that's why it's "infamous.") Sometimes, when editing a BASIC program, the program gets garbled, or the computer simply crashes.

Another effect of this bug is that string assignments involving multiples of 256 bytes don't work correctly. This is especially irritating because one of the advantages of Atari BASIC over most others (such as Microsoft) is supposed to be that you can use strings longer than 255 bytes. But how can you use long strings if you don't know if they're going to work right?

Fortunately, the string half of this bug isn't too difficult to work around: if you're doing string assignments which might attempt to move a multiple of 256 characters, modify them so they always move an ODD number of characters. In other words, if you want to move an EVEN number of characters, just move one "extra" character.

The editing bug is harder to avoid. The best advice, I believe, applies bug or no bug: SAVE EARLY AND OFTEN! There are a few things you can do, however: If you have several consecutive lines to delete or edit, save your program first. If you have Revision A, delete or edit the lines in descending order. For Revision B, do them in ascending order. Chances are, if you get by the first line, they'll all work OK. If you don't make it, however, reboot, reload your program, and skip the line you crashed on, proceeding in order with the rest. This is almost sure to work. Save your work again before making that change you skipped, however--it could still crash.

BUG #2 (REV. A ONLY) Unary minus (e.g. -x) doesn't work correctly if the value being negated happens to be zero.

You'll never notice this unless try to print it out, because -0 still evaluates to zero in an expression. If you do happen to print -0, however, you'll see garbage. This is easy to work around, though: instead of PRINTing -A, use PRINT 0-A.

BUG #3: (REV. A ONLY) Very occasionally, the LOCATE and GET instructions will garble a byte of memory.

The most common place this happens is immediately after a READ statement, in which case it can garble one of the DATA statements in your program, but it can also occur in a few other situations. The workaround is to ignore it until it happens to you. When it does happen, insert a dummy statement using the STR$ function (like DUMMY$=ST$(0)) immediately before the troublesome GET or LOCATE. This should clear things up. (Printing any number will also work because PRINT calls STR$ internally.)

BUG #4: (REV. A ONLY) The interpreter will accept an INPUT or READ statement with no variable names after it!

It should report an error, of course. There's no workaround; you should simply be careful. Also, save any prog t before running it. If it locks up for o apparent reason, check to see if you've made this error.

BUG #5: (REV. A ONLY) Unary operators don't quite work correctly, especially the NOT operator.

PRINT NOT NOT 1 will produce an ERROR 10 (expression too complex) if you're lucky--or crash your computer if you're not. Unary minus also has a problem (unrelated to bug #2 above): PRINT --3 will print -3 rather than just 3. Workaround: Don't stack NOT's, -'s, or +'s without an intervening parenthesis. And in the case of NOT, use a parenthesis even if you're not stacking anything else. In other words, use -(-3) instead of --3, or NOT (A<B OR A<C) rather than trying to get away with NOT A<B OR A<C.

Interestingly, Atari's fix for this bug (in Revs. B and C) is slightly different from the fix OSS uses in BASIC A+/XL/XE. Unary + and - were fixed the same way in all of them, so PRINT --3 will print 3, as it should. However, PRINT NOT NOT 1, which prints 1 on OSS's BASICs (as it should) generates a syntax error in Atari BASIC B or C!

OSS's fix requires extensiv y restructuring BASIC's "operator precedence table," a task which was apparently beyond the programmers at the "old" Atari, so they simply made stacked NOTs illegal instead!

BUG #6: (REV. B ONLY) The 16-byte "expando" bug.

Apparently, there is a bug in either the Atari OS or Rev. A BASIC which occasionally causes them to attempt to write over each other's memory when memory is nearly full. In a lame attempt to work around this bug, some jerk at the "old" Atari decided that if they made BASIC think that a program was 16 bytes longer than it really was, they would avoid getting zapped by the OS. Unfortunately, they did this by adding 16 to each of the "page 0" pointers BASIC uses to keep track of where various parts of your program are. The net effect is that the 16 "extra" bytes are at the BOTTOM of the program where they are of absolutely no help in doing what they are designed to do (avoid the OS), but do manage to get themselves SAVEd each time you save the program. The really bad thing is that they get LOADed back when you reload the program, but ANOTHER 16 bytes are added at that time, so the effect is cumulative: each time you SAVE and then reLOAD a program, it gets 16 bytes larger! Eventually, you end up with a lot of wasted space in your programs.

The only workaround is to use LIST and ENTER rather than SAVE and LOAD. If you have Rev. B, I strongly suggest you do this, because it will also help you recover when the infamous keyboard lockup bug strikes.

BUG #7: (ALL VERSIONS, INCLUDING BASIC A+ / X L / X E) Believe it or not, STR$(A)=STR$(B) only compares the lengths of STR$(A) and STR$(B), not their values!

This is an example of asking BASIC to be more intelligent than any 8K program is likely to be. You see, the STR$ function simply calls the "convert to ASCII" routine in the floating-point package, which always puts the resulting string in a buffer at address hex 580 in memory. So when the above expression is evaluated, the printed representation of A is stored at $580. Then STR$ is called again, which places the printed representation of B at $580, overlaying STR$(A). Now the two strings at $580 are compared. If they're the same length, of course they match!

To work correctly, STR$ would have to allocate memory and copy the result to it. Be we can do that ourselves in this workaround: A$=STR$(A):IF A$=STR$(B) THEN...

BUG #8: (ALL VERSIONS, INCLUDING BASIC A+/XL/XE) This is my personal favorite. Amaze your friends; you can DIM (32766,32766) without getting an "out of memory" error!

In fact, this only reduces free memory by six bytes (the size of one array element!)

BASIC only does a two-byte multiply of your array bounds. If the product is over 64K, therefore, BASIC will only attempt to allocate the remainder (over the nearest 64K) and so may not notice the error. Then when it calculates the address of the a reference to the array, it can end up practically anywhere, causing a crash, a garbled program, or other strange symptoms. The workaround is the same as for the INPUT/READ bug in Rev. A: Be careful, save your program before running, and if you can't figure out what's wrong, look for this error.

BUG #9: (ALL VERSIONS, INCLUDING BASIC A+/XL/XE) When PRINTing a quoted string ending in ctrl-R or ctrl-U, a carriage return is not output, as though a semicolon were at the end of the PRINT statement.

This bug makes no sense at all unless you understand the way BASIC represents your program in memory. Every line of your BASIC program except REMs and DATA statements is converted to a "tokenized" format when entered. In particular each special symbol in BASIC (e.g. ",#,:, and even two-character symbols such as ,-) is represented by a one-byte "token" rather than its ATASCII value. Constants are also tokenized: a numeric constant becomes a special "number" followed by its six-byte floating-point value, and a string constant becomes a "string" token followed by a length byte and finally the contents of the string. But notice there is NO token for the CLOSING quotation mark of a string. So when BASIC gets to the end of a PRINT statement, it looks to see if the previous token is a comma's or a semicolon's token, so it can tell whether or not to print a carriage return, if the PRINT statement ends with a quoted string, BASIC ends up thinking the last character in the string is the previous token! And guess which characters correspond to the comma and semicolon tokens?

The easiest workaround is simply to print CHR$(18) or CHR$(21) instead of ctrl-R or ctrl-U. The problem can also occur when printing expressions ending in certain numeric literals. This is pretty rare, but if it does happen, simply assign the expression to a variable and print the variable instead; i.e., replace "PRINT X/.12121212" with "ANS=X/12121212:PRINT ANS".

BUG #10 (ALL VERSIONS, INCLUDING BASIC A+/XL/XE) BASIC correctly diagnoses a reference to IOCB #8 thru #15 as an error. But #16 thru #23 work fine, having the same meaning as #0 thru #7 respectively.

This is an example of a "feature:" a bug with useful side effects. For instance, have you ever wanted to issue a

simple INPUT statement without getting a "?"
printed? With BASIC A+/etc. you can INPUT
#0, but if you use Atari BASIC, you were
stuck. Oh sure, you could always OPEN an
IOCB to the E: device, but that cleared the
screen. So you probably ended up OPENing an
IOCB to the K: device, then using GET and
PRINT to assemble the INPUT one character at
a time.

Now you don't have to. To INPUT
from the screen with a "?" printing, simply
INPUT #16. Since #16 is the same as #0, and
since IOCB #0 is always open to the screen,
this will work.

That's all the bugs I know of.
There could be others, of course. Now that
you know all the pitfalls, you can decide
whether it's worth it to upgrade to Rev. C
or one of the OSS BASICs, and in the
meantime, you can program more confidently.

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DOTS PERFECT

Reviewed by Steve Golden
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For the many thousands of you who
purchased an Epson FX-80 printer and now
wish it had a NLQ (Near Letter Quality)
mode, there is a product on the market you
should know about. It's called DOTS PERFECT
by Dresselhaus Computer Products, 837 East
Alosta Avenue, Glendora, CALIFORNIA 91740.
Phone (818) 914-5831. Dots Perfect sells for
$79.95 and is a set of replacement chips for
the Epson FX-80, FX-100 or JX-80 printers
with versions also available for the MX-80
and RX-80 series.

My first impression is the packaging
is very professional and appears to be a
quality product. The packaging, in this
case, tells the truth. Dots Perfect is an
excellent value. The owner's manual gives
clear and concise installation instructions,
including photos of the various
configurations you may find inside your
printer. I find the photos more accurate
and helpful than the drawings. The complete
installation took me twenty minutes. No
soldering is needed and no special tools
were required. Dots Perfect has a one year
warranty and the manual says "Epson America
has determined that proper installation of
Dots Perfect... will not void the printer
warranty". This in itself gives me
confidence in the product. Dots Perfect
adds NLQ mode and lets you change fonts by
using the on-line, FF, and LF buttons as
well as allowing standard software control.
I've seen NLQ printing from software
upgrades and from some hardware upgrades and
I was very impressed when the NLQ looked
more like Letter Quality than NLQ. The
print looks like it was done on a typewriter
using a fabric ribbon. Sure, you can tell

it's dot matrix, but it's the best NLQ I
seen on any nine pin dot matrix printer.

A big plus is the font control. You
can set/reset the font without programming
whenever the printer is on-line. The
options give you condensed, elite,
proportional, double-wide, emphasized,
italics, underline, fine print, 8 lines per
inch, plus quiet mode, slash zero, perf skip
and margin control. All this from the three
control buttons on the printer. There is a
beep from each setting so you always get a
positive indication that your selections
have taken effect. Users of Bank Street
Writer on the 8-bit Ataris can print letters
in draft until ready for a final copy. Then
just press FF and print again, this time in
NLQ mode.

If this were all Dots Perfect could
do, it would be a great bargain, but there's
more. You've heard of Magic Sac, the ST
emulator of the Macintosh, produced by Data
Pacific. One problem with emulating a Mac
is the Mac expects to be printing to an
Imagewriter and puts out Imagewriter control
codes. Surprise of surprises! One of the
DIP switches now switches from Epson mode
into IBM or Apple Mode. Flip the switch and
your Epson accepts Imagewriter control
codes. I've tested Dots Perfect using
MacWrite and printing numerous fonts such as
bold, underline, italic, subscript
superscript as well as the more exo
outline, shadow and Cairo fonts. I also did
some graphics dumps with MacDraw and
everything went without a hitch.

My compliments to Dan Dresselhaus, the
inventor of Dots Perfect. An excellent buy.

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EDITORIAL

To tell you the truth...I was terrified
when I found I was to be the newsletter
editor for the coming year. But I have
found it is fun! I am enjoying it
tremendously. Verily, it IS a lot of
work...but very satisfying.

It is not difficult to find articles
that I think you would like and find useful
from many sources (other
newsletters...downloads from PLINK, or
GENIE, or COMPUSERVE, or other BBS's).
HOWEVER, our newsletter should be more than
just reprints. We have a lot of talent in
our group and this newsletter could be much
more original and exciting if it included
articles/reviews/opinions from our members!

Do you have a unique use for your
computer? TELL US ABOUT IT! Have you f
a program you like/hate? TELL US ABOUT
Do you have an idea for something you would
like to see the club do?

TELL US ABOUT IT!!

The Pittsburgh Atari Computer Enthusiasts (P.A.C.E.) is the largest Atari Users Group in the Pittsburgh area and was founded in August, 1981 to help Atari computer users. P.A.C.E., a non-profit organization, has members in and around the greater Pittsburgh area and all over the country.

We meet once every month at the Green Tree Marriott Hotel, usually on the second Monday of the month, at 7:00 p.m. At the meetings we discuss subjects ranging from new products being introduced to new uses for old products. Members are encouraged to raise any problems they may be having (to which solutions are often found!), and to inform the others of any new discovery they may have made. The meetings are often lively and entertaining as well as educational. Typically, the presentations and demonstrations at the monthly meetings are provided by our members willing to share their experiences, however, sometimes we have representatives from companies that provide products and services applicable to the Atari Computer.

In addition to the regular monthly meeting the ST Special Interest Group (ST SIG) meets monthly to exchange information, ideas and public domain software specifically relating to the new Atari 520ST and 1040ST computers. P.A.C.E. periodically holds classes on various subjects ranging from language tutorials to assistance in the operation of various pieces of Atari related hardware and software. In addition, when we identify products of interest to many of our members we may negotiate a group purchase to pass on the lower cost to our members.

In addition to monthly meetings at the Green Tree Marriott, P.A.C.E. also sends out monthly newsletters to its members, other users groups across the country, and various magazines and manufacturers of Atari-compatible software and hardware. These newsletters contain news, reviews, and help with problems our members are having. Keeping PACE is considered to be one of the better newsletters in the national users group community.

We also maintain, on a 24 hour a day basis, an electronic Bulletin Board System (BBS) open to all. This Bulletin Board is accessable to 300 or 1200 baud modems, at 412-963-1355. In addition to up-to-date "Bulletins", the P.A.C.E. BBS also has user to user messages and a large selection of Public Domain software developed by our members and those of other user groups for the Atari computers.

The programs available on the BBS are just part of the Library of public programs the club has. Numbered (conservatively) at over 1000 different programs, this library contains games, word processors, communications programs, and various utilities and documentation files. Availaable to members at the meetings for a nominal fee, this software has helped many members since these programs range from small, simple utilities to full power programs that rival commercial software in their abilities, but not their cost.

We invite you to learn more about us. Feel free to drop by one of our meetings. If you would like further information about the club, or a complimentary newsletter, you can call our Bulletin Board and leave a message or write to P.A.C.E. at the following address:

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P.A.C.E. Membership Application: $20.00 fee enclosed

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Compuserve ID:_____ Source ID:_____ Other: _____

Computer:_____8-Bit_____ or 16-Bit_____

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Suggestions:_____

I can help with..._____

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